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भाग 1 तीन और चार पहिए वाले

Indian Standard

AUTOMOTIVE VEHICLES — TYPES — TERMINOLOGY

PART 1 THREE AND FOUR WHEELERS

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BUREAU OF INDIAN STANDARDS
MANAK BHAVAN, 9 BAHADUR SHAH ZAFAR MARG
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FOREWORD

This Indian Standard was adopted by the Bureau of Indian Standards, after the draft finalized by the Automotive Basic Standards Sectional Committee had been approved by the Transport Engineering Division Council.

In the preparation of this standard considerable assistance has been taken from ISO 3383:1972 'Road vehicles — Types — Terms and definitions'.

This Indian Standard does not cover vehicles such as agricultural tractors, which are only incidentally used for carriage of persons or goods by road or for towing, on the road, vehicles used for carrying persons or goods.

The types and terminology for two wheelers is separately covered in Part 2 of this standard.

The composition of the committee responsible for preparation of this standard is given in Annex A.

Indian Standard

AUTOMOTIVE VEHICLES — TYPES — TERMINOLOGY

PART 1 THREE AND FOUR WHEELERS

1 SCOPE

This standard defines types, terminologies relating to road vehicles designated according to their design and technical characteristics. The provisions of this standard apply to some types of vehicles designed for operation on road, namely, motor vehicle, towed vehicle, combinations of vehicles.

2 TERMS AND DEFINITIONS

For the purpose of this standard, the following definitions shall apply.

2.1 Motor Vehicle

A self propelled vehicle used on road or off-road, which is not rail borne, and which is normally used for:

- — carrying persons and/or goods,
- — towing vehicle used for the carriage of persons and/or goods, and
- — special service.

2.1.1 *M Category*

Motor vehicle having at least four wheels used for carrying passengers.

2.1.1.1 *M1 category*

Vehicle used for carrying passengers and comprising not more than nine seating positions including driving seat. This include forward control vehicle having steering wheel located in forward quarter of the total length of the vehicle.

2.1.1.1.1 *Passenger car*

A motor vehicle which on account of its design and appointments is intended mainly for carrying persons and their luggage.

2.1.1.1.2 *Station wagon*

A motor vehicle with body shape so designed in order to give larger interior volume and intended for carrying passengers and their luggage.

2.1.1.1.3 *Utility vehicle*

A motor vehicle intended to be used for carrying persons and their luggage and load.

In addition, the vehicle shall satisfy at least five of the following six requirements:

a) Front incidence angle to be 25° *Min.*
b) Rear incidence angle to be 20° *Min.*
c) Ramp over angle to be 20° *Min.*
d) Ground clearance not less than 200 mm between axles.
e) Ground clearance not less than 180 mm under front axle.
f) Ground clearance not less than 180 mm under rear axle.

2.1.1.1.4 *Cross country vehicles*

A motor vehicle intended for carrying persons and their luggage or goods. The vehicle is primarily designed to operate on rough and cross country roads.

These vehicles must be provided with at least one front axle and one rear axle designed to be driven simultaneously including vehicles where drive to one axle can be disengaged.

These vehicles shall satisfy the following:

Gradability not less than 30 percent.

In addition, vehicle shall satisfy at least five of the following six requirements:

a) Front incidence angle to be 25° *Min.*
b) Rear incidence angle to be 20° *Min.*
c) Ramp over angle to be 20° *Min.*
d) Ground clearance not less than 200 mm between the axles.
e) Ground clearance not less than 180 mm under front axle.
f) Ground clearance not less than 180 mm under rear axle.

2.1.1.2 *M2 category*

Vehicle having more than 9 and less than 25 seating positions including driving seat and having a maximum mass not exceeding five tonnes.

2.1.1.2.1 *Station wagon*

A motor vehicle with a body shape so designed in order to give larger interior volume and intended for carrying passengers and their luggage. The maximum seating capacity shall not exceed 12 seats including driving seat.

2.1.1.2.2 *Minibus*

A passenger vehicle having more than 12 and less than 25 seating positions including driving seat.

2.1.1.2.3 *Utility vehicle*

A motor vehicle intended for carrying persons and their luggage and load.

In addition, the vehicle shall satisfy at least five of the following six requirements:

a) Front incidence angle to be 25° *Min*.
b) Rear incidence angle to be 20° *Min*.
c) Ramp over angle to be 20° *Min*.
d) Ground clearance not less than 200 mm between axles.
e) Ground clearance not less than 180 mm under front axle.
f) Ground clearance not less than 180 mm under rear axle.

2.1.1.2.4 *Cross country vehicle*

A motor vehicle intended for carrying persons and their luggage or goods. The vehicle is primarily designed to operate on rough and cross country roads.

The vehicle must be provided with at least one front axle and one rear axle designed to be driven simultaneously, including the vehicle where drive to one axle can be disengaged.

The vehicle shall satisfy the following:

Gradability not less than 30 percent.

In addition, the vehicle shall satisfy at least five of the following six requirements:

a) Front incidence angle to be 25° *Min*.
b) Rear incidence angle to be 20° *Min*.
c) Ramp over angle to be 20° *Min*.
d) Ground clearance not less than 200 mm between the axles.
e) Ground clearance not less than 180 mm under front axle.
f) Ground clearance not less than 180 mm under rear axle.

2.1.1.3 *M3 category*

Vehicle having more than 25 seating positions including driving seat and having a maximum mass exceeding 5 tonnes.

2.1.1.3.1 *Bus*

A motor vehicle on account of its design and appointments is intended to carry passengers and their luggage. It may have one or two decks and may also tow a trailer.

2.1.1.3.2 *Utility vehicle*

A motor vehicle intended for carrying persons and their luggage and load.

In addition, the vehicle shall satisfy at least five of the following six requirements:

a) Front incidence angle to be 25° *Min*.
b) Rear incidence angle to be 20° *Min*.
c) Ramp over angle to be 20° *Min*.
d) Ground clearance not less than 200 mm between axles.
e) Ground clearance not less than 180 mm under front axles.
f) Ground clearance not less than 180 mm under rear axles.

2.1.1.3.3 *Cross country vehicles*

A motor vehicle intended for carrying persons and their luggage or goods. The vehicle is primarily designed to operate on rough and cross country roads.

The vehicle must be provided with at least one front axle and one rear axle designed to be driven simultaneously including vehicle where drive to one axle can be disengaged.

The vehicle shall satisfy the following:

Gradability not less than 30 percent.

In addition, the vehicle shall satisfy at least five of the following six requirements:

a) Front incidence angle to be 25° *Min*.
b) Rear incidence angle to be 20° *Min*.
c) Ramp over angle to be 20° *Min*.
d) Ground clearance not less than 200 mm between the axles.
e) Ground clearance not less than 180 mm under front axle.
f) Ground clearance not less than 180 mm under rear axle.

2.1.2 *N Category*

Motor vehicle having at least four wheels and used for carrying goods.

2.1.2.1 *N1 category*

Vehicle having a maximum mass not exceeding 3.5 tonnes.

2.1.2.1.1 *Pick up*

A motor vehicle on account of its design is intended to carry goods in cargo body.

2.1.2.1.2 *Delivery van*

A motor vehicle on account of its design is intended to carry goods in closed body.

2.1.2.1.3 *Utility vehicle*

A motor vehicle intended to be used for carrying goods.

In addition, the vehicle shall satisfy at least five of the following six requirements:

a) Front incidence angle to be 25° *Min.*
b) Rear incidence angle to be 20° *Min.*
c) Ramp over angle to be 20° *Min.*
d) Ground clearance not less than 200 mm between the axles.
e) Ground clearance not less than 180 mm under front axle.
f) Ground clearance not less than 180 mm under rear axle.

2.1.2.1.4 *Cross country vehicle*

A motor vehicle used for carrying goods. The vehicle is primarily designed to operate on rough and cross country roads.

The vehicle must be provided with at least one front axle and at least one rear axle designed to be driven simultaneously including vehicles where drive to one axle can be disengaged.

Gradability not less than 30 percent.

In addition, the vehicle shall satisfy at least five of the following six requirements:

a) Front incidence angle to be 25° *Min.*
b) Rear incidence angle to be 20° *Min.*
c) Ramp over angle to be 20° *Min.*
d) Ground clearance not less than 200 mm between the axles.
e) Ground clearance not less than 180 mm under front axle.
f) Ground clearance not less than 180 mm under rear axle.

2.1.2.2 *N2 category*

Vehicle having a maximum mass exceeding 3.5 tonnes and not exceeding 12 tonnes.

2.1.2.2.1 *Pick up*

A motor vehicle on account of its design is intended to carry goods in cargo body.

2.1.2.2.2 *Delivery van*

A motor vehicle on account of its design is intended to carry goods in closed body.

2.1.2.2.3 *Utility vehicle*

A motor vehicle intended to be used for carrying goods.

In addition, the vehicle shall satisfy at least five of the following six requirements:

a) Front incidence angle to be 25° *Min.*
b) Rear incidence angle to be 20° *Min.*
c) Ramp over angle to be 20° *Min.*
d) Ground clearance not less than 200 mm between the axles.
e) Ground clearance not less than 180 mm under front axle.
f) Ground clearance not less than 180 mm under rear axle.

2.1.2.2.4 *Cross country vehicle*

A motor vehicle used for carrying goods. The vehicle is primarily designed to operate on rough and cross country roads.

The vehicle must be provided with at least one front axle and at least one rear axle designed to be driven simultaneously including vehicle where drive to one axle can be disengaged.

Gradability not less than 30 percent.

In addition, the vehicle shall satisfy at least five of the following six requirements:

a) Front incidence angle to be 25° *Min.*
b) Rear incidence angle to be 20° *Min.*
c) Ramp over angle to be 20° *Min.*
d) Ground clearance not less than 200 mm between the axles.
e) Ground clearance not less than 180 mm under front axle.
f) Ground clearance not less than 180 mm under rear axle.

NOTE — The requirements indicated for utility vehicle and cross country vehicle are in unladen condition.

2.1.2.3 *N3 category*

Vehicle having a maximum mass exceeding 12 tonnes.

2.1.2.3.1 *Pick up*

A motor vehicle on account of its design is intended to carry goods in cargo body.

2.1.2.3.2 *Delivery van*

A motor vehicle on account of its design is intended to carry goods in closed body.

2.1.2.3.3 *Utility vehicle*

A motor vehicle intended to be used for carrying goods.

In addition, the vehicle shall satisfy at least five of the following six requirements:

a) Front incidence angle to be 25° *Min.*
b) Rear incidence angle to be 20° *Min.*
c) Ramp over angle to be 20° *Min.*
d) Ground clearance not less than 200 mm between the axles.
e) Ground clearance not less than 180 mm under front axle.
f) Ground clearance not less than 180 mm under rear axle.

2.1.2.3.4 *Cross country vehicle*

A motor vehicle used for carrying goods. The vehicle is primarily designed to operate on rough and cross country roads.

The vehicle must be provided with at least one front axle and at least one rear axle designed to be driven simultaneously, including vehicle where drive to one axle can be disengaged.

Gradability not less than 30 percent.

In addition, the vehicle shall satisfy at least five of the following six requirements:

a) Front incidence angle to be 25° *Min.*
b) Rear incidence angle to be 20° *Min.*
c) Ramp over angle to be 20° *Min.*
d) Ground clearance not less than 200 mm between the axles.
e) Ground clearance not less than 180 mm under front axle.
f) Ground clearance not less than 180 mm under rear axle.

2.2 Towed Vehicle

Means a non power driven road vehicle which, on account of its design and appointments is used to transport persons or goods and is intended to be towed by a motor vehicle; semi-trailer is included in this category.

2.2.1 *T Category*

Towed vehicle with at least two wheels, on account of its design and appointments is intended for carrying persons or goods.

2.2.2 *T1 Category*

Trailer having a maximum mass not exceeding 0.75 tonnes.

2.2.3 *T2 Category*

Trailer having a maximum mass exceeding 0.75 tonnes but not exceeding 3.5 tonnes.

2.2.4 *T3 Category*

Trailer having a maximum mass exceeding 3.5 tonnes but not exceeding 10 tonnes.

2.2.5 *T4 Category*

Trailer having a maximum mass exceeding 10 tonnes.

2.3 Combination of Vehicles

Means a motor vehicle as defined in **2.1** coupled with one or more towed vehicles as defined in **2.2**.

2.4 Three Wheeler

Means a three wheeled motor vehicle (not power assisted pedal cycle) powered by thermic engine, which is normally used for:

- Carrying persons or goods
- Trailer or semi-trailer may be attached.

2.4.1 *Autorickshaw*

A three wheeler on account of its design and appointments intended to carry passengers and their luggage.

Handle bar or steering wheel may be fitted.

Gross vehicle weight will be limited to 1 500 kg.

2.4.2 *Goods Carrier*

A three wheeler on account of its design and appointments intended to carry goods.

Handle bar or steering wheel may be fitted.

Gross vehicle weight will be limited to 1 500 kg.

ANNEX A

(*Foreword*)

COMMITTEE COMPOSITION

Automotive Basic Standards Sectional Committee, TED 1

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